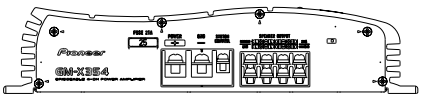
Service Manual

GM-X354/X1R/EW



ORDER NO.
CRT2615

BRIDGEABLE FOUR-CHANNEL POWER AMPLIFIER

GM-X354

X1R/UC,EW,ES

CONTENTS

1. SAFETY INFORMATION.....2
2. EXPLODED VIEWS AND PARTS LIST.....2
3. SCHEMATIC DIAGRAM.....6
4. PCB CONNECTION DIAGRAM.....8
5. ELECTRICAL PARTS LIST.....12
6. ADJUSTMENT.....15
7. GENERAL INFORMATION.....16
   7.1 DISASSEMBLY.....16
8. OPERATIONS AND SPECIFICATIONS.....17

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1. SAFETY INFORMATION

● **GM-X354/X1R/UC**

CAUTION

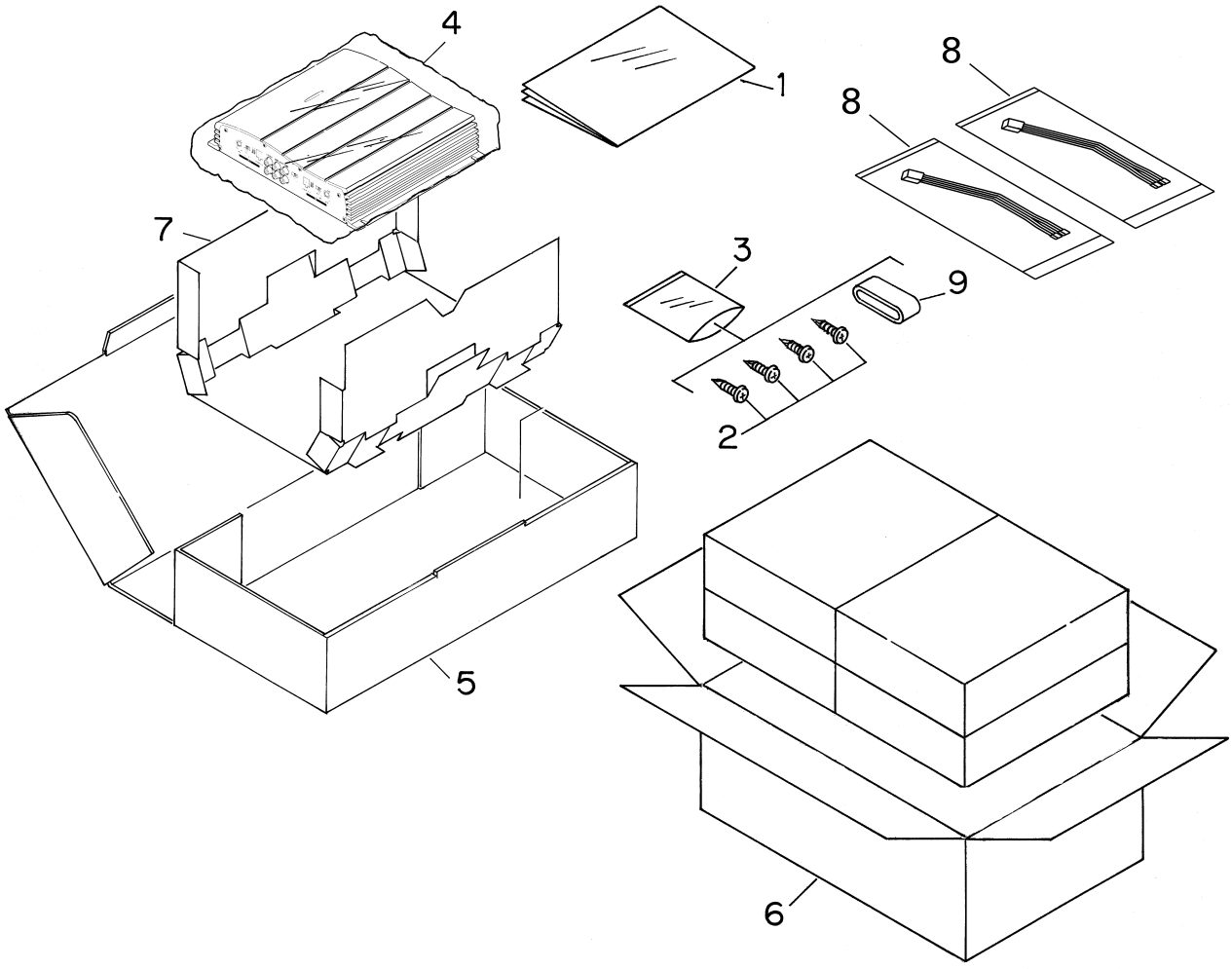
This service manual is intended for qualified service technicians; it is not meant for the casual do-it-yourselfer.
Qualified technicians have the necessary test equipment and tools, and have been trained to properly and safely repair complex products such as those covered by this manual.
Improperly performed repairs can adversely affect the safety and reliability of the product and may void the warranty.
If you are not qualified to perform the repair of this product properly and safely; you should not risk trying to do so and refer the repair to a qualified service technician.

WARNING

This product contains lead in solder and certain electrical parts contain chemicals which are known to the state of California to cause cancer, birth defects or other reproductive harm.
Health & Safety Code Section 25249.6 - Proposition 65

2. EXPLODED VIEWS AND PARTS LIST

2.1 PACKING



NOTE:

● Parts marked by "*" are generally unavailable because they are not in our Master Spare Parts List.

● Screws adjacent to ∇ mark on the product are used for disassembly.

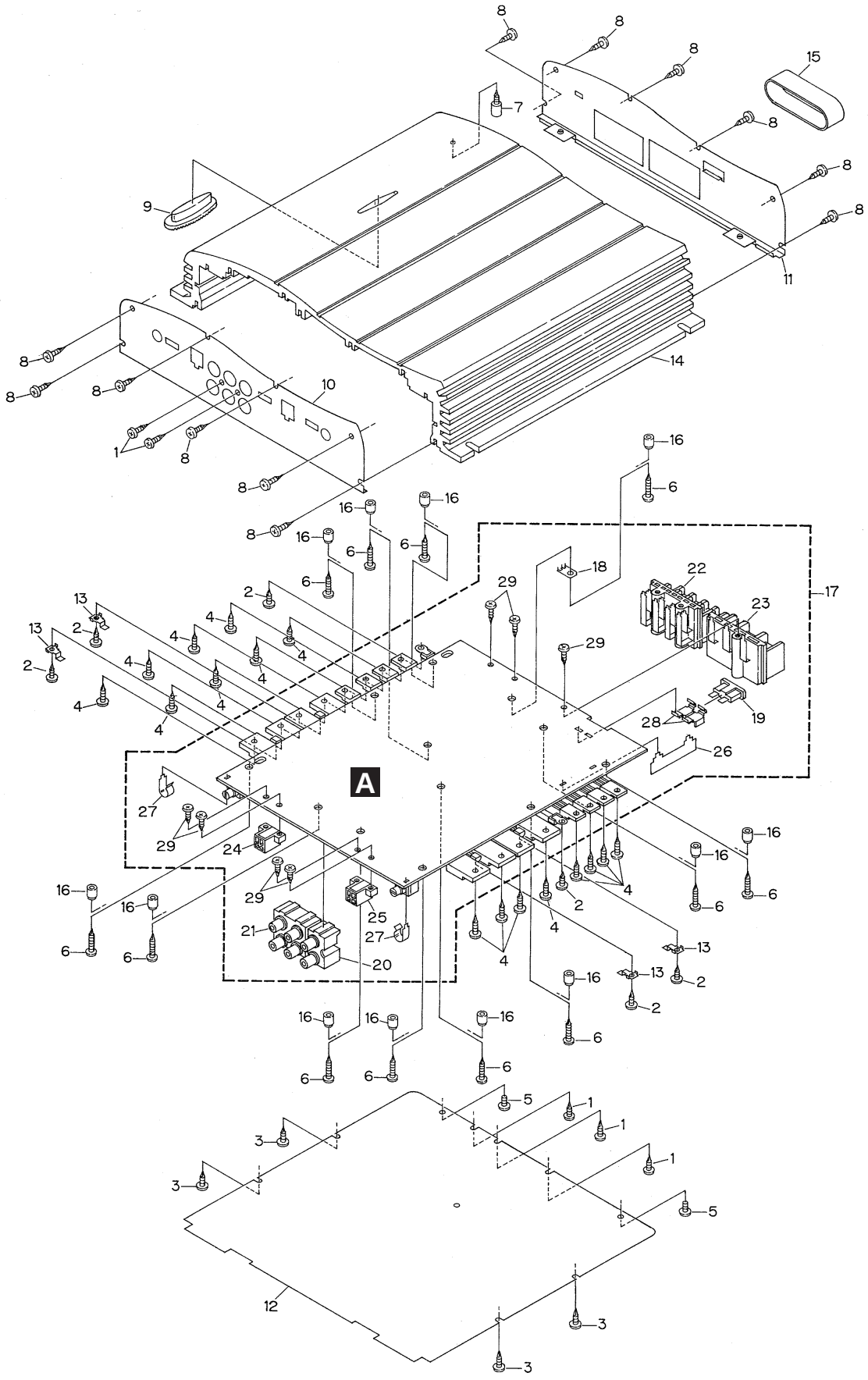
● PACKING SECTION PARTS LIST

Mark	No.	Description	Part No. GM-X354/X1R/UC	Part No. GM-X354/X1R/EW	Part No. GM-X354/X1R/ES
*	1-1	Warranty Card	Not used	HRY1157	Not used
	1-2	Owner's Manual	HRD0163	HRD0160	HRD0164
	1-3	Owner's Manual	Not used	Not used	HRD0175
*	1-4	Card	ARY1048	Not used	Not used
	2	Screw	BYC40P180FZK	BYC40P180FZK	BYC40P180FZK
	3	Polyethylene Bag	HEG0011	HEG0011	HEG0011
	4	Polyethylene Bag	HEG0013	HEG0013	HEG0013
	5	Carton	HHG0279	HHG0279	HHG0279
	6	Contain Box	HHL0279	HHL0279	HHL0279
	7	Protector	HHP0106	HHP0106	HHP0106
	8	Cord Assy	HDE0036	HDE0036	HDE0036
	9	Cover	HNS0101	HNS0101	HNS0101

● Owner's Manual

Model	Part No.	Language
GM-X354/X1R/UC	HRD0163	English, French
GM-X354/X1R/EW	HRD0160	English, Spanish, German, French, Italian, Dutch
GM-X354/X1R/ES	HRD0164	English, Spanish
	HRD0175	Portuguese(B), Arabic

2.2 EXTERIOR



(1) EXTERIOR SECTION PARTS LIST

Mark No.	Description	Part No.
1	Screw	PPZ30P100FZK
2	Screw	BBZ30P050FMC
3	Screw	BBZ30P060FMC
4	Screw	BBZ30P080FMC
5	Screw	BSZ30P050FZK
6	Screw(M3x12)	CBA1323
7	Screw(M3x5)	HBA0006
8	Screw(M3x8)	HBA0011
9	Light Pipe Unit	HXA0322
10	Panel	See Contrast table(2)
11	Panel	See Contrast table(2)
12	Case	HNB0132
13	Holder	HNC0080
14	Heat Sink	See Contrast table(2)
15	Cover	HNS0101
16	Spacer	HNV0016
17	Amp Unit	See Contrast table(2)
18	Terminal(CN903)	CKF1059
19	Fuse(25A)	HEK0025
20	Pin Jack(CN802)	HKB0001
21	Pin Jack(CN801)	HKB0005
22	Terminal(CN851)	HKE0033
23	Terminal(CN901)	HKE0036
24	Connector(CN803)	HKM1077
25	Connector(CN804)	HKM1077
26	Buss Bar	HNC0043
27	Clip	HNC0054
28	Holder	HNC0082
29	Screw	PPZ30P100SAD

(2) CONTRAST TABLE

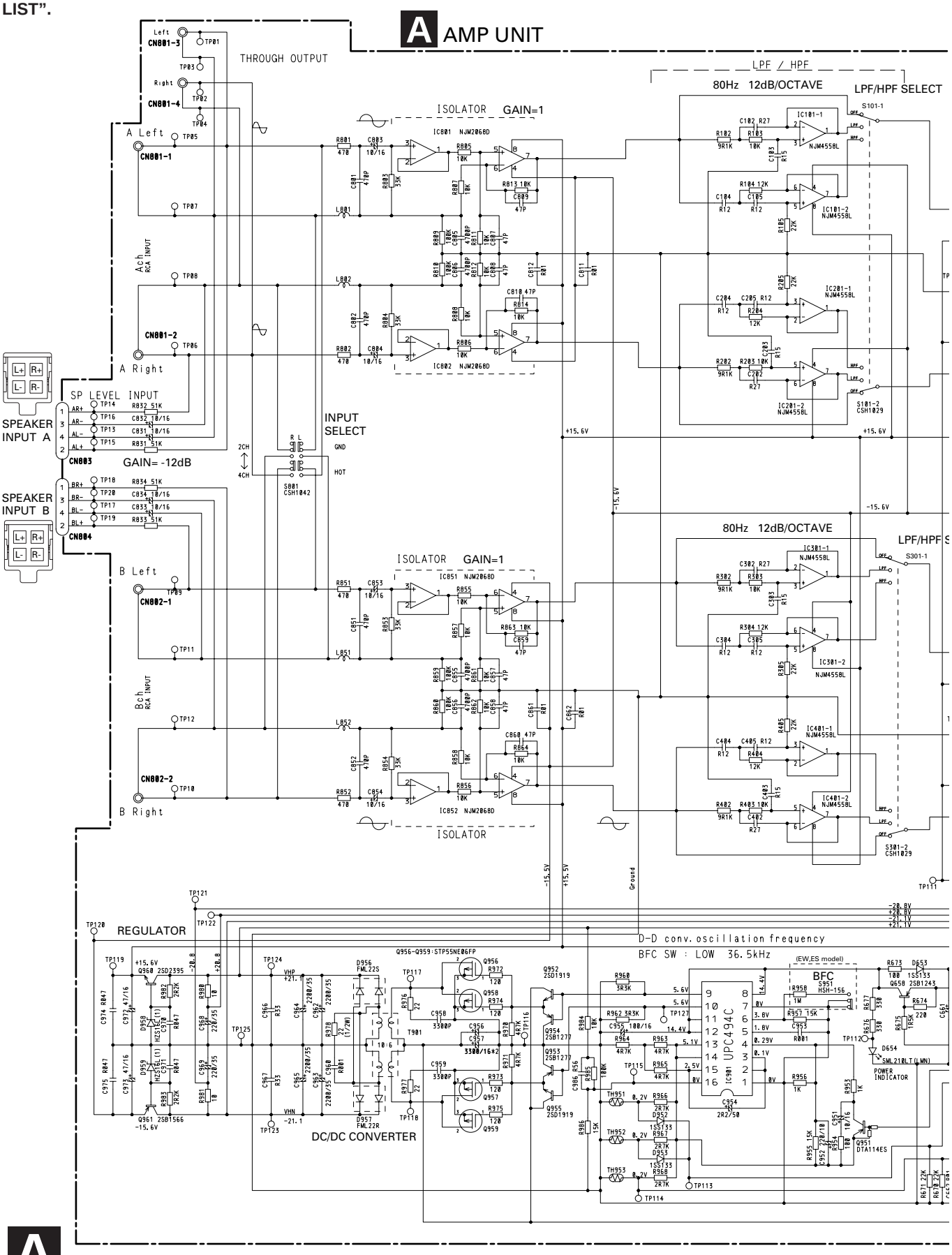
GM-X354/X1R/UC, EW and ES are constructed the same except for the following:

Mark No.	Description	Part No.		
		GM-X354/X1R/UC	GM-X354/X1R/EW	GM-X354/X1R/ES
10	Panel	HNB0125	HNB0143	HNB0125
11	Panel	HNB0127	HNB0148	HNB0127
14	Heat Sink	HNR0180	HNR0188	HNR0180
17	Amp Unit	HWH0151	HWH0150	HWH0152

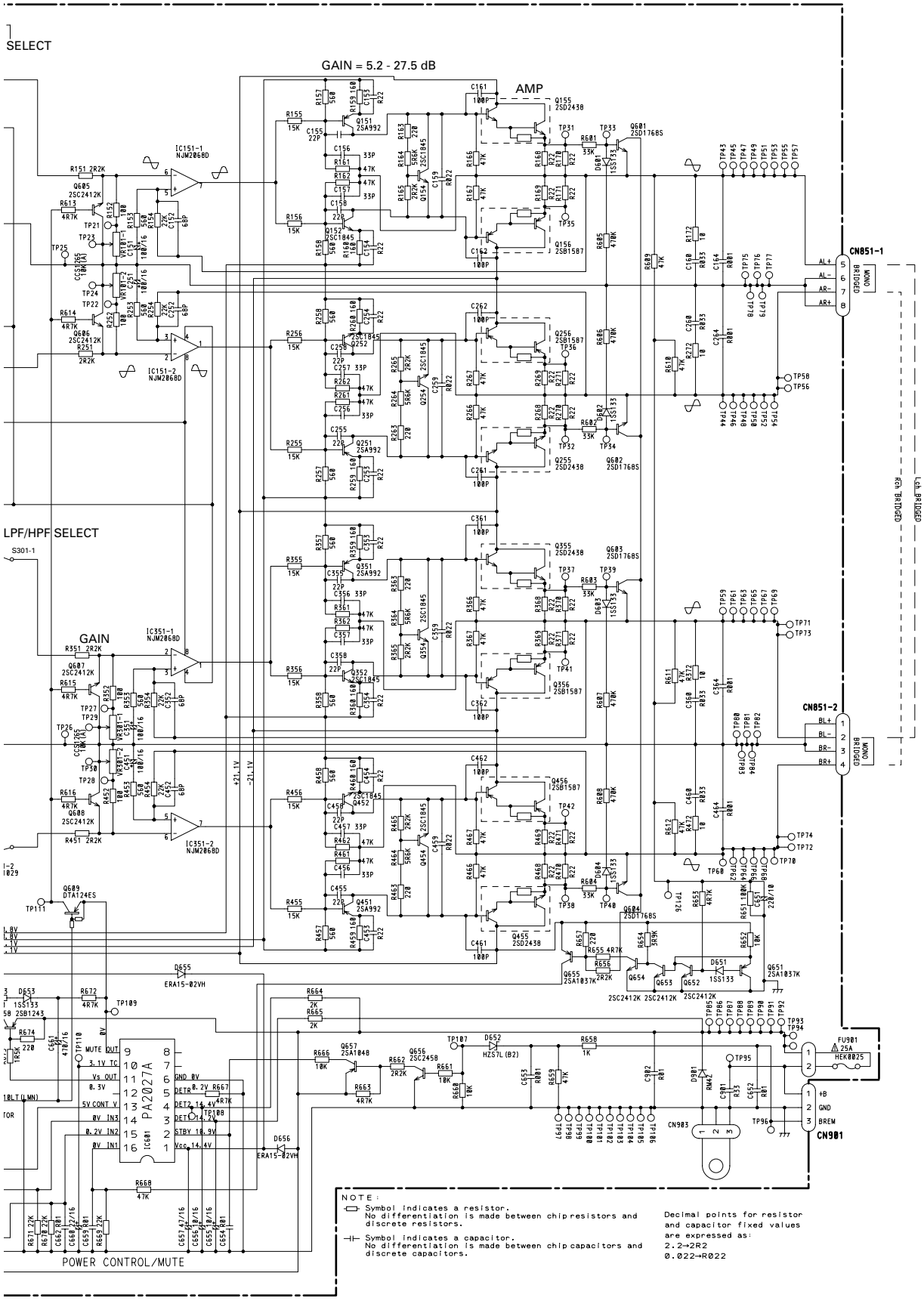
3. SCHEMATIC DIAGRAM

3.1 AMP UNIT

Note: When ordering service parts, be sure to refer to "EXPLODED VIEWS AND PARTS LIST" or "ELECTRICAL PARTS LIST".



The ⚠ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.

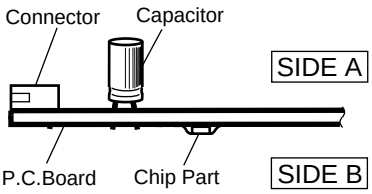


4. PCB CONNECTION DIAGRAM

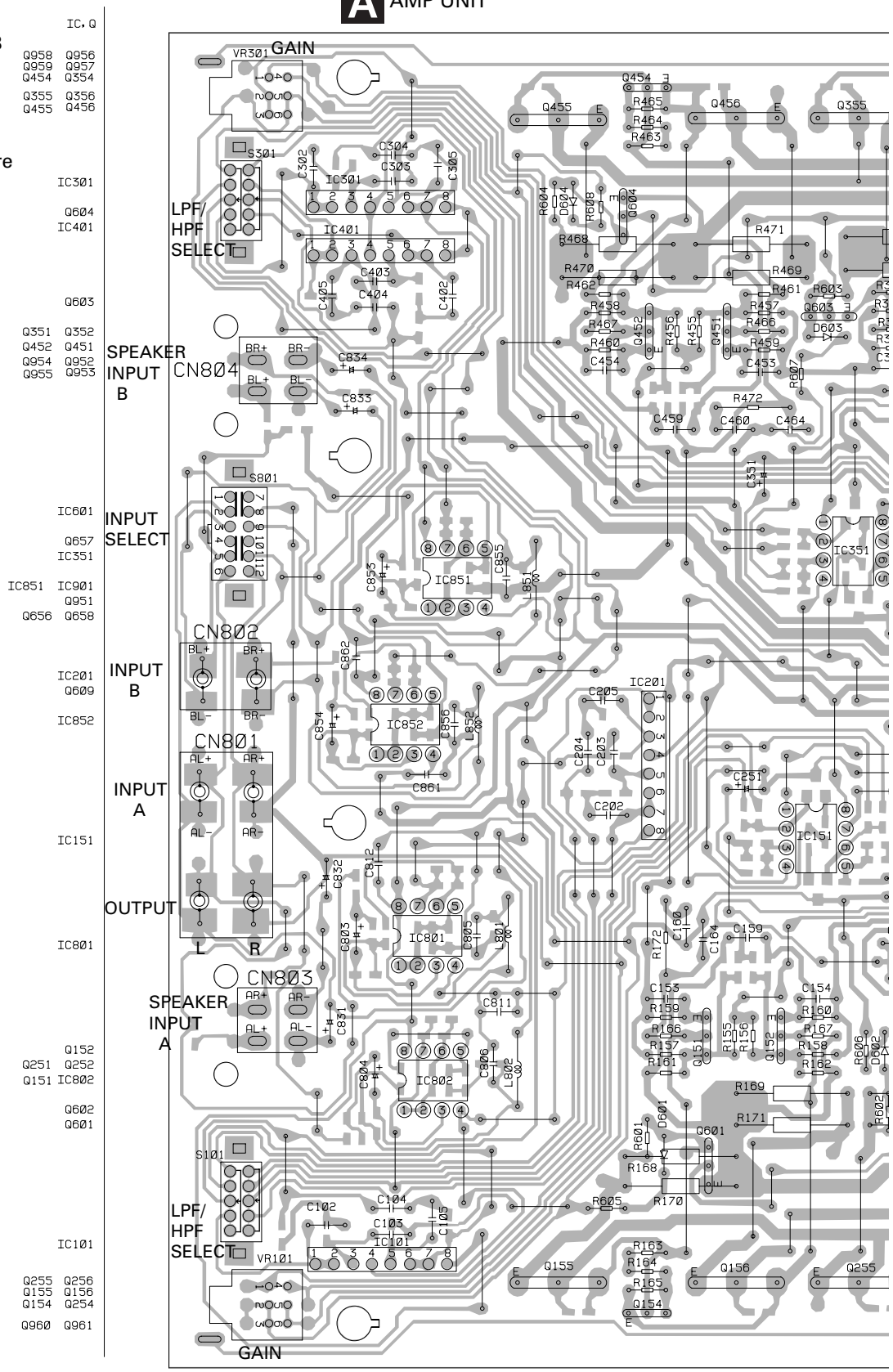
4.1 AMP UNIT

NOTE FOR PCB DIAGRAMS

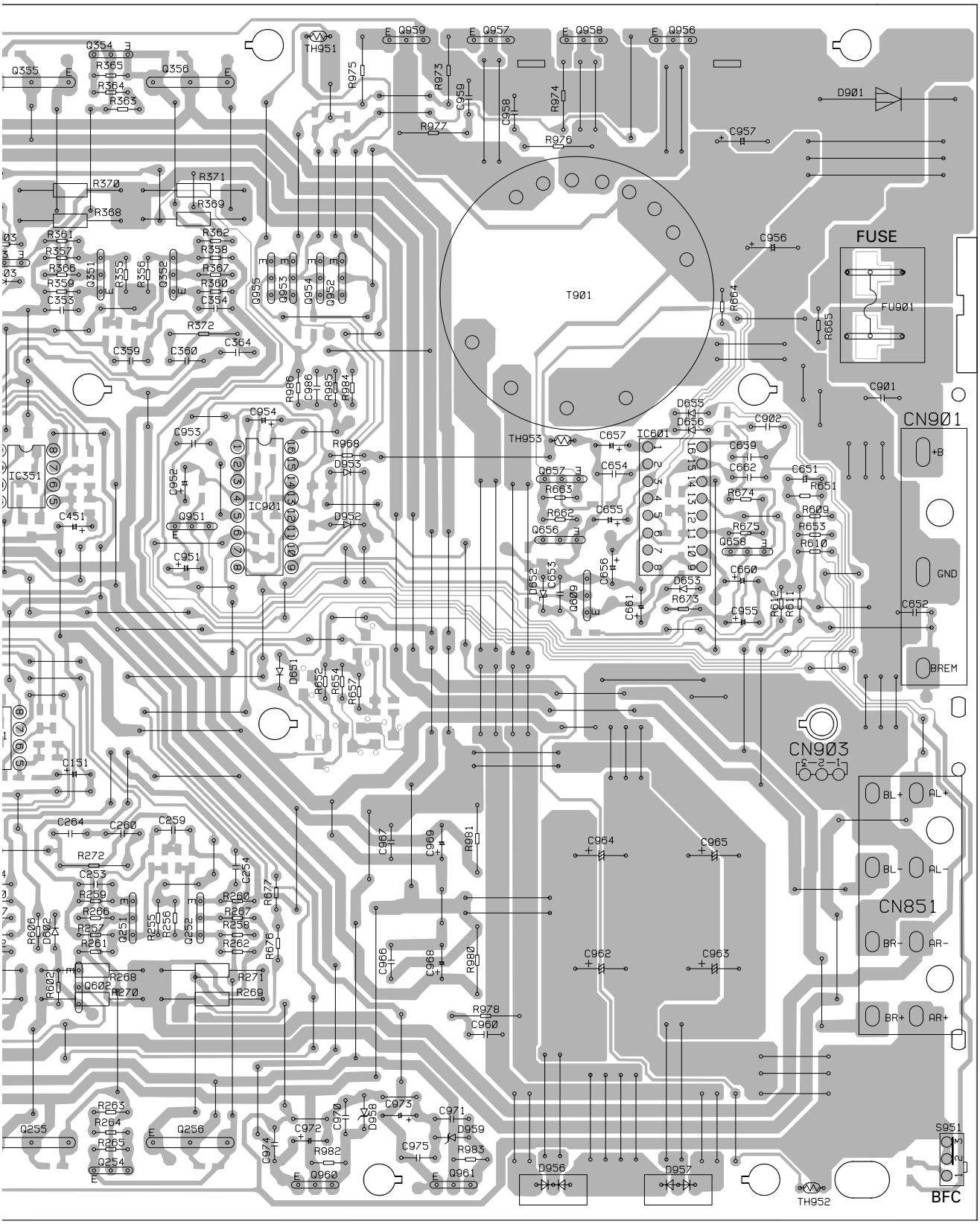
1. The parts mounted on this PCB include all necessary parts for several destination.
   For further information for respective destinations, be sure to check with the schematic diagram.
2. Viewpoint of PCB diagrams



A AMP UNIT



SIDE A


FUSE
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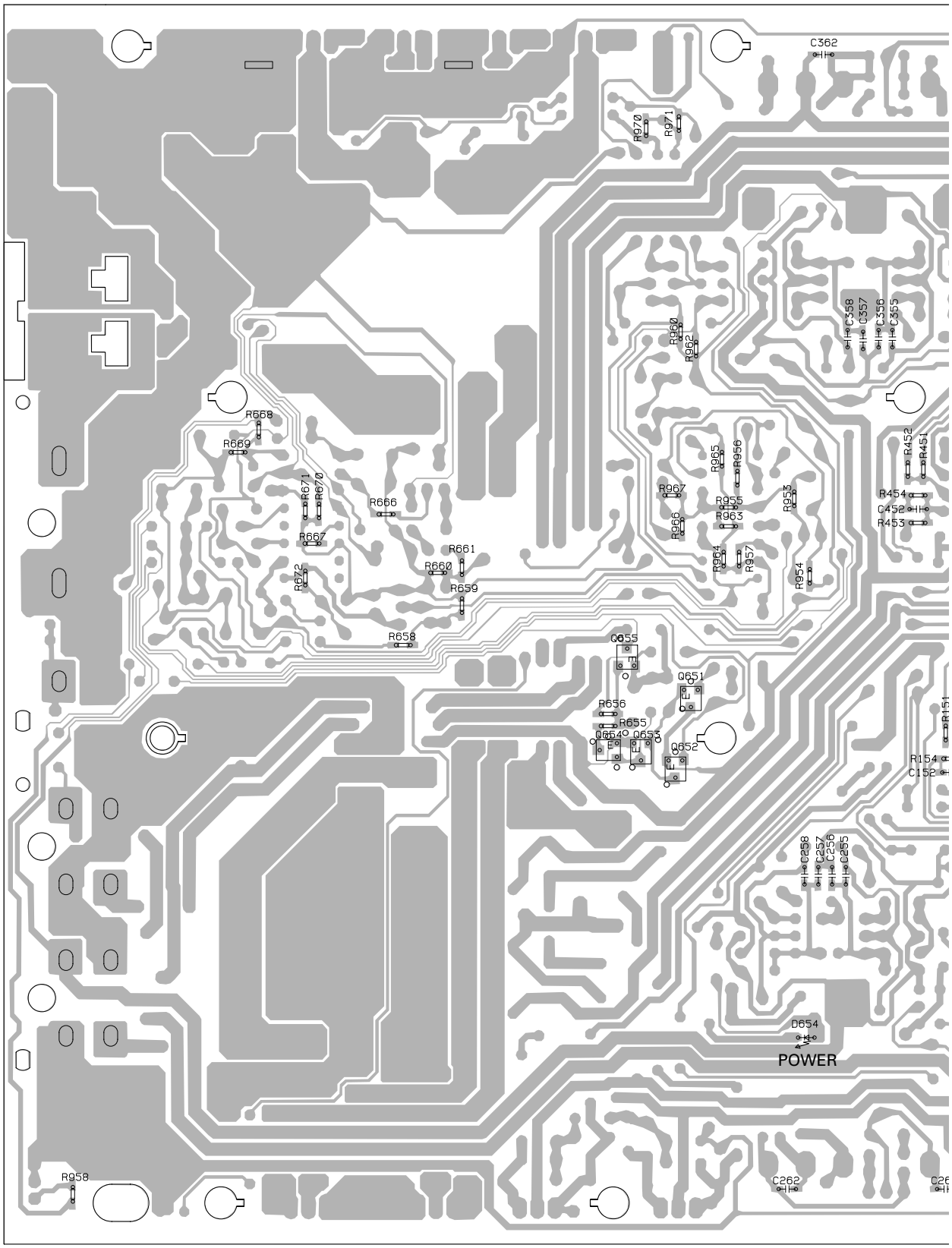
A AMP UNIT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C452
R453
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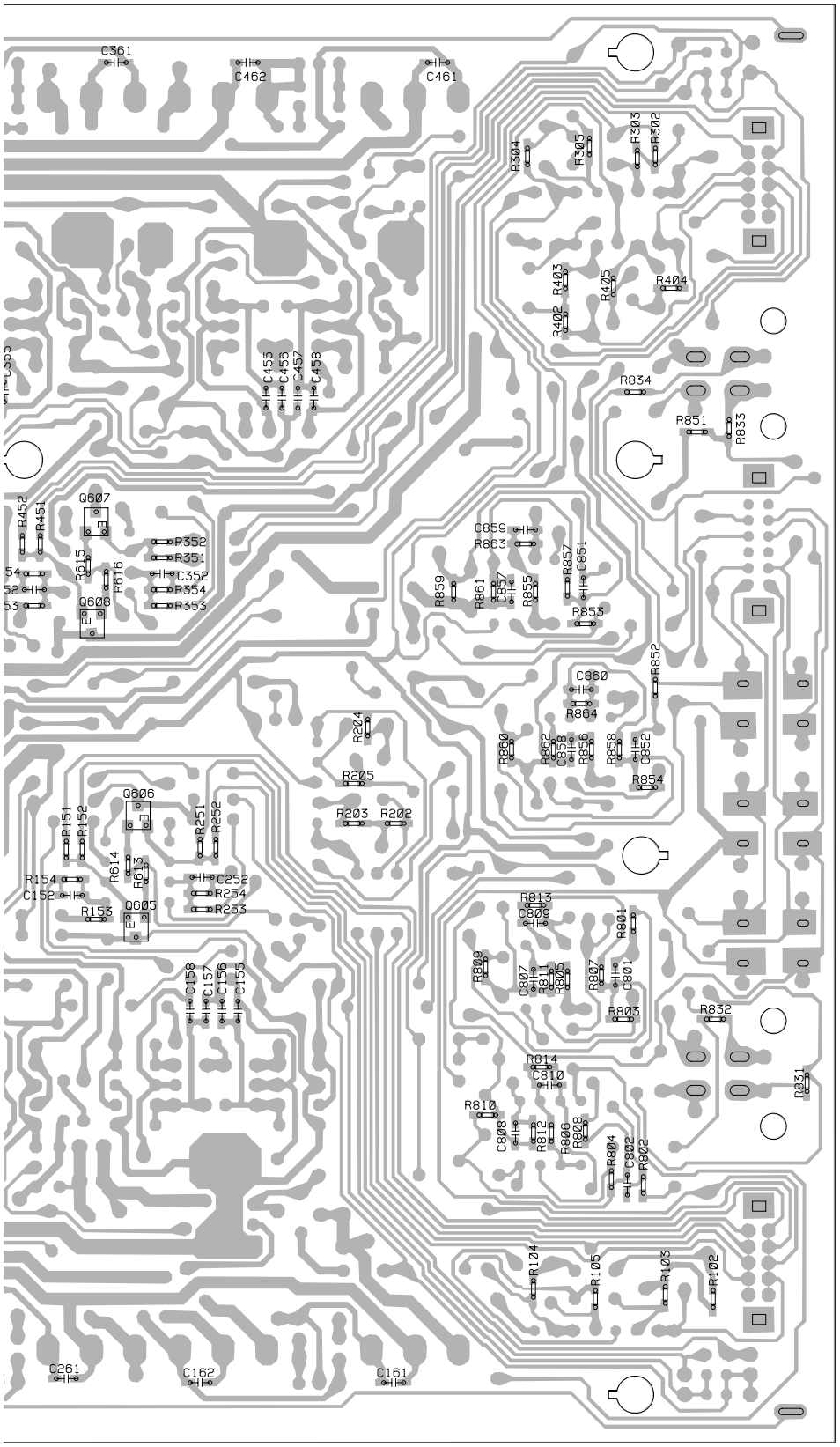
Q652
R151
R154
C152
C258
C257
C256
C255
D654
POWER
R958
C262

SIDE B



IC, Q

A

B

Q607

Q608

Q655

Q651 Q606

Q654 Q653
Q652

Q605

C

D

5. ELECTRICAL PARTS LIST

NOTE:

- Parts whose parts numbers are omitted are subject to being not supplied.
- The part numbers shown below indicate chip components.

Chip Resistor

RS1/○S○○○J,RS1/○○S○○○J

Chip Capacitor (except for CQS.....)

CKS....., CCS....., CSZS.....

A Unit Number : HWH0151(GM-X354/X1R/UC)
: HWH0150(GM-X354/X1R/EW)
: HWH0152(GM-X354/X1R/ES)
Unit Name : Amp Unit

MISCELLANEOUS

=====Circuit Symbol and No.		===Part Name	Part No.
IC	101	IC	NJM4558L
IC	151	IC	NJM2068D
IC	201	IC	NJM4558L
IC	301	IC	NJM4558L
IC	351	IC	NJM2068D
IC	401	IC	NJM4558L
IC	601	IC	PA2027A
IC	801	IC	NJM2068D
IC	802	IC	NJM2068D
IC	851	IC	NJM2068D
IC	852	IC	NJM2068D
IC	901	IC	UPC494C
Q	151	Transistor	2SA992
Q	152	Transistor	2SC1845
Q	154	Transistor	2SC1845
Q	155	Transistor	2SD2438
Q	156	Transistor	2SB1587
Q	251	Transistor	2SA992
Q	252	Transistor	2SC1845
Q	254	Transistor	2SC1845
Q	255	Transistor	2SD2438
Q	256	Transistor	2SB1587
Q	351	Transistor	2SA992
Q	352	Transistor	2SC1845
Q	354	Transistor	2SC1845
Q	355	Transistor	2SD2438
Q	356	Transistor	2SB1587
Q	451	Transistor	2SA992
Q	452	Transistor	2SC1845
Q	454	Transistor	2SC1845
Q	455	Transistor	2SD2438
Q	456	Transistor	2SB1587
Q	601	Transistor	2SD1768S
Q	602	Transistor	2SD1768S
Q	603	Transistor	2SD1768S
Q	604	Transistor	2SD1768S
Q	605	Transistor	2SC2412K
Q	606	Transistor	2SC2412K
Q	607	Transistor	2SC2412K
Q	608	Transistor	2SC2412K
Q	609	Transistor	DTA124ES
Q	651	Transistor	2SA1037K
Q	652	Transistor	2SC2412K
Q	653	Transistor	2SC2412K
Q	654	Transistor	2SC2412K
Q	655	Transistor	2SA1037K
Q	656	Transistor	2SC2458
Q	657	Transistor	2SA1048
Q	658	Transistor	2SB1243
Q	951	Transistor	DTA114ES

=====Circuit Symbol and No.		===Part Name	Part No.
Q	952	Transistor	2SD1919
Q	953	Transistor	2SB1277
Q	954	Transistor	2SB1277
Q	955	Transistor	2SD1919
Q	956	FET	STP55NE06FP
Q	957	FET	STP55NE06FP
Q	958	FET	STP55NE06FP
Q	959	FET	STP55NE06FP
Q	960	Transistor	2SD2395
Q	961	Transistor	2SB1566
D	601	Diode	1SS133
D	602	Diode	1SS133
D	603	Diode	1SS133
D	604	Diode	1SS133
D	651	Diode	1SS133
D	652	Diode	HZS7L(B2)
D	653	Diode	1SS133
D	654	LED	SML210LT(LMN)
D	655	Diode	ERA15-02VH
D	656	Diode	ERA15-02VH
D	901	Diode	RM4Z
D	952	Diode	1SS133
D	953	Diode	1SS133
D	956	Diode	FML22S
D	957	Diode	FML22R
D	958	Diode	HZS16L(1)
D	959	Diode	HZS16L(1)
L	801	Ferri-Inductor	CTF1007
L	802	Ferri-Inductor	CTF1007
L	851	Ferri-Inductor	CTF1007
L	852	Ferri-Inductor	CTF1007
T	901	Transformer	HTT0011
TH	951	Thermistor	CCX1013
TH	952	Thermistor	CCX1013
TH	953	Thermistor	CCX1035
S	101	Switch(LPF/HPF SELECT)	CSH1029
S	301	Switch(LPF/HPF SELECT)	CSH1029
S	801	Switch(INPUT SELECT)	CSH1042
S	951	Switch(BFC)(EW,ES model)	HSH-156
VR	101	10kΩ(A)	CCS1265
VR	301	10kΩ(A)	CCS1265
		Fuse 25A	HEK0025

RESISTORS

R	102		RS1/10S912J
R	103		RS1/10S103J
R	104		RS1/10S123J
R	105		RS1/10S223J
R	151		RS1/10S222J
R	152		RS1/10S101J
R	153		RS1/10S561J
R	154		RS1/10S223J
R	155		RD1/4PU153J
R	156		RD1/4PU153J

=====Circuit Symbol and No.		===Part Name	Part No.
R	157		RD1/4PU561J
R	158		RD1/4PU561J
R	159		RD1/4PU161J
R	160		RD1/4PU161J
R	161		RD1/4PU473J
R	162		RD1/4PU473J
R	163		RD1/4PU221J
R	164		RD1/4PU562J
R	165		RD1/4PU222J
R	166		RD1/4PU473J
R	167		RD1/4PU473J
R	168	0.22Ω	CCN1013
R	169	0.22Ω	CCN1013
R	170	0.22Ω	CCN1013
R	171	0.22Ω	CCN1013
R	172		RS1/2PMF100J
R	202		RS1/10S912J
R	203		RS1/10S103J
R	204		RS1/10S123J
R	205		RS1/10S223J
R	251		RS1/10S222J
R	252		RS1/10S101J
R	253		RS1/10S561J
R	254		RS1/10S223J
R	255		RD1/4PU153J
R	256		RD1/4PU153J
R	257		RD1/4PU561J
R	258		RD1/4PU561J
R	259		RD1/4PU161J
R	260		RD1/4PU161J
R	261		RD1/4PU473J
R	262		RD1/4PU473J
R	263		RD1/4PU221J
R	264		RD1/4PU562J
R	265		RD1/4PU222J
R	266		RD1/4PU473J
R	267		RD1/4PU473J
R	268	0.22Ω	CCN1013
R	269	0.22Ω	CCN1013
R	270	0.22Ω	CCN1013
R	271	0.22Ω	CCN1013
R	272		RS1/2PMF100J
R	302		RS1/10S912J
R	303		RS1/10S103J
R	304		RS1/10S123J
R	305		RS1/10S223J
R	351		RS1/10S222J
R	352		RS1/10S101J
R	353		RS1/10S561J
R	354		RS1/10S223J
R	355		RD1/4PU153J
R	356		RD1/4PU153J
R	357		RD1/4PU561J
R	358		RD1/4PU561J
R	359		RD1/4PU161J
R	360		RD1/4PU161J
R	361		RD1/4PU473J
R	362		RD1/4PU473J
R	363		RD1/4PU221J
R	364		RD1/4PU562J
R	365		RD1/4PU222J
R	366		RD1/4PU473J
R	367		RD1/4PU473J
R	368	0.22Ω	CCN1013
R	369	0.22Ω	CCN1013

=====Circuit Symbol and No.		===Part Name	Part No.
R	370	0.22Ω	CCN1013
R	371	0.22Ω	CCN1013
R	372		RS1/2PMF100J
R	402		RS1/10S912J
R	403		RS1/10S103J
R	404		RS1/10S123J
R	405		RS1/10S223J
R	451		RS1/10S222J
R	452		RS1/10S101J
R	453		RS1/10S561J
R	454		RS1/10S223J
R	455		RD1/4PU153J
R	456		RD1/4PU153J
R	457		RD1/4PU561J
R	458		RD1/4PU561J
R	459		RD1/4PU161J
R	460		RD1/4PU161J
R	461		RD1/4PU473J
R	462		RD1/4PU473J
R	463		RD1/4PU221J
R	464		RD1/4PU562J
R	465		RD1/4PU222J
R	466		RD1/4PU473J
R	467		RD1/4PU473J
R	468	0.22Ω	CCN1013
R	469	0.22Ω	CCN1013
R	470	0.22Ω	CCN1013
R	471	0.22Ω	CCN1013
R	472		RS1/2PMF100J
R	601		RD1/4PU333J
R	602		RD1/4PU333J
R	603		RD1/4PU333J
R	604		RD1/4PU333J
R	605		RD1/4PU474J
R	606		RD1/4PU474J
R	607		RD1/4PU474J
R	608		RD1/4PU474J
R	609		RD1/4PU473J
R	610		RD1/4PU473J
R	611		RD1/4PU473J
R	612		RD1/4PU473J
R	613		RS1/10S472J
R	614		RS1/10S472J
R	615		RS1/10S472J
R	616		RS1/10S472J
R	651		RD1/4PU104J
R	652		RD1/4PU103J
R	653		RD1/4PU472J
R	654		RD1/4PU392J
R	655		RS1/10S472J
R	656		RS1/10S222J
R	657		RD1/4PU221J
R	658		RS1/10S102J
R	659		RS1/10S473J
R	660		RS1/10S103J
R	661		RS1/10S103J
R	662		RD1/4PU222J
R	663		RD1/4PU472J
R	664		RD1/4PU202J
R	665		RD1/4PU202J
R	666		RS1/10S103J
R	667		RS1/10S472J
R	668		RS1/10S473J
R	669		RS1/10S223J
R	670		RS1/10S223J

=====Circuit Symbol and No.		===Part Name	Part No.
R	671		RS1/10S223J
R	672		RS1/10S472J
R	673		RD1/4PU101J
R	674		RD1/4PU221J
R	675		RD1/4PU152J
R	676		RD1/4PU331J
R	677		RD1/4PU331J
R	801		RS1/10S471J
R	802		RS1/10S471J
R	803		RS1/10S333J
R	804		RS1/10S333J
R	805		RN1/10SE1002D
R	806		RN1/10SE1002D
R	807		RN1/10SE1002D
R	808		RN1/10SE1002D
R	809		RS1/10S104J
R	810		RS1/10S104J
R	811		RN1/10SE1002D
R	812		RN1/10SE1002D
R	813		RN1/10SE1002D
R	814		RN1/10SE1002D
R	831		RS1/10S513J
R	832		RS1/10S513J
R	833		RS1/10S513J
R	834		RS1/10S513J
R	851		RS1/10S471J
R	852		RS1/10S471J
R	853		RS1/10S333J
R	854		RS1/10S333J
R	855		RN1/10SE1002D
R	856		RN1/10SE1002D
R	857		RN1/10SE1002D
R	858		RN1/10SE1002D
R	859		RS1/10S104J
R	860		RS1/10S104J
R	861		RN1/10SE1002D
R	862		RN1/10SE1002D
R	863		RN1/10SE1002D
R	864		RN1/10SE1002D
R	953		RS1/10S102J
R	954		RS1/10S101J
R	955		RS1/10S153J
R	956		RS1/10S102J
R	957		RS1/10S153J
R	958	(EW,ES model)	RS1/10S105J
R	960		RS1/10S332J
R	962		RS1/10S332J
R	963		RS1/10S472J
R	964		RS1/10S472J
R	965		RS1/10S472J
R	966		RS1/10S272J
R	967		RS1/10S272J
R	968		RD1/4PU272J
R	970		RS1/10S472J
R	971		RS1/10S472J
R	972		RS1/2PMF121J
R	973		RS1/2PMF121J
R	974		RS1/2PMF121J
R	975		RS1/2PMF121J
R	976		RS1/2PMF220J
R	977		RS1/2PMF220J
R	978		RS1/2PMF220J
R	980		RS1/2PMF100J
R	981		RS1/2PMF100J
R	982		RD1/4PU222J

=====Circuit Symbol and No.		===Part Name	Part No.
R	983		RD1/4PU222J
R	984		RD1/4PU103J
R	985		RD1/4PU104J
R	986		RD1/4PU153J

CAPACITORS

C	102		CFTLA274J50
C	103		CFTLA154J50
C	104		CFTLA124J50
C	105		CFTLA124J50
C	151		CEAS101M16
C	152		CCSQSL680J50
C	153		CFTNA224J50
C	154		CFTNA224J50
C	155		CCSQCH220J50
C	156		CCSQCH330J50
C	157		CCSQCH330J50
C	158		CCSQCH220J50
C	159		CFTLA223J50
C	160		CFTLA333J50
C	161		CCSQCH101J50
C	162		CCSQCH101J50
C	164		CQMA102J50
C	202		CFTLA274J50
C	203		CFTLA154J50
C	204		CFTLA124J50
C	205		CFTLA124J50
C	251		CEAS101M16
C	252		CCSQSL680J50
C	253		CFTNA224J50
C	254		CFTNA224J50
C	255		CCSQCH220J50
C	256		CCSQCH330J50
C	257		CCSQCH330J50
C	258		CCSQCH220J50
C	259		CFTLA223J50
C	260		CFTLA333J50
C	261		CCSQCH101J50
C	262		CCSQCH101J50
C	264		CQMA102J50
C	302		CFTLA274J50
C	303		CFTLA154J50
C	304		CFTLA124J50
C	305		CFTLA124J50
C	351		CEAS101M16
C	352		CCSQSL680J50
C	353		CFTNA224J50
C	354		CFTNA224J50
C	355		CCSQCH220J50
C	356		CCSQCH330J50
C	357		CCSQCH330J50
C	358		CCSQCH220J50
C	359		CFTLA223J50
C	360		CFTLA333J50
C	361		CCSQCH101J50
C	362		CCSQCH101J50
C	364		CQMA102J50
C	402		CFTLA274J50
C	403		CFTLA154J50
C	404		CFTLA124J50
C	405		CFTLA124J50
C	451		CEAS101M16
C	452		CCSQSL680J50
C	453		CFTNA224J50
C	454		CFTNA224J50
C	455		CCSQCH220J50

=====Circuit Symbol and No.		===Part Name	Part No.
C	456		CCSQCH330J50
C	457		CCSQCH330J50
C	458		CCSQCH220J50
C	459		CFTLA223J50
C	460		CFTLA333J50
C	461		CCSQCH101J50
C	462		CCSQCH101J50
C	464		CQMA102J50
C	651	220µF/10V	CCH1036
C	652		CFTLA103J50
C	653		CQMA102J50
C	654		CFTLA103J50
C	655		CEAS100M16
C	656		CEAS100M16
C	657		CEAS470M16
C	659		CFTLA103J50
C	660		CEAS220M16
C	661	470µF/16V	CCH1183
C	662		CFTLA103J50
C	801		CKSQYB471K50
C	802		CKSQYB471K50
C	803		CEAS100M16
C	804		CEAS100M16
C	805		CQMA472J50
C	806		CQMA472J50
C	807		CCSQCH470J50
C	808		CCSQCH470J50
C	809		CCSQCH470J50
C	810		CCSQCH470J50
C	811		CFTLA103J50
C	812		CFTLA103J50
C	831		CEAS100M16
C	832		CEAS100M16
C	833		CEAS100M16
C	834		CEAS100M16
C	851		CKSQYB471K50
C	852		CKSQYB471K50
C	853		CEAS100M16
C	854		CEAS100M16
C	855		CQMA472J50
C	856		CQMA472J50
C	857		CCSQCH470J50
C	858		CCSQCH470J50
C	859		CCSQCH470J50
C	860		CCSQCH470J50

=====Circuit Symbol and No.		===Part Name	Part No.
C	861		CFTLA103J50
C	862		CFTLA103J50
C	901		CFTLA334J50
C	902		CFTLA103J50
C	951		CEAS100M16
C	952		CEAS221M10
C	953		CQMA102J50
C	954		CEAS2R2M50
C	955		CEAS101M16
C	956	3300µF/16V	HCH0005
C	957	3300µF/16V	HCH0005
C	958		CQMA332J50
C	959		CQMA332J50
C	960		CQMA102J50
C	962	2200µF/35V	HCH0003
C	963	2200µF/35V	HCH0003
C	964	2200µF/35V	HCH0003
C	965	2200µF/35V	HCH0003
C	966		CFTLA334J50
C	967		CFTLA334J50
C	968		CEAS221M35
C	969		CEAS221M35
C	970		CFTLA473J50
C	971		CFTLA473J50
C	972		CEAS470M16
C	973		CEAS470M16
C	974		CFTLA473J50
C	975		CFTLA473J50
C	986		CFTLA564J50

6. ADJUSTMENT

There is no information to be shown in this chapter.

7. GENERAL INFORMATION

7.1 DISASSEMBLY

● **Removing the Case and the Panel (Fig.1)**

1 Remove the four screws.

2 Remove the two screws.

3 Remove the three screws and then remove the Case.

4 Remove the six screws and then remove the Panel.

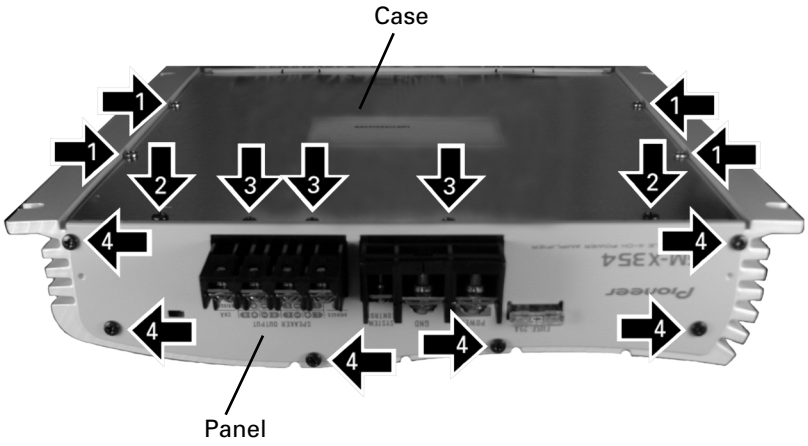


Fig.1

● **Removing the Amp Unit (Fig.2)**

1 Remove the twenty-two screws.

2 Remove the two screws.

3 Remove the twelve screws and then remove the Amp Unit.

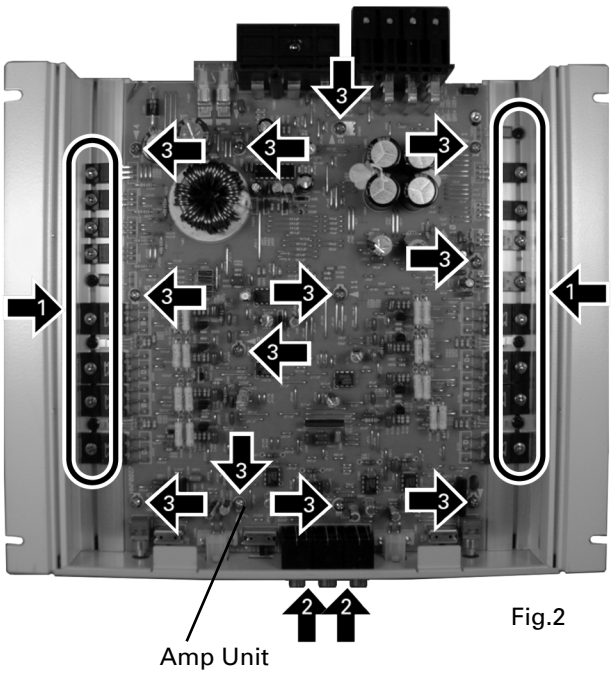
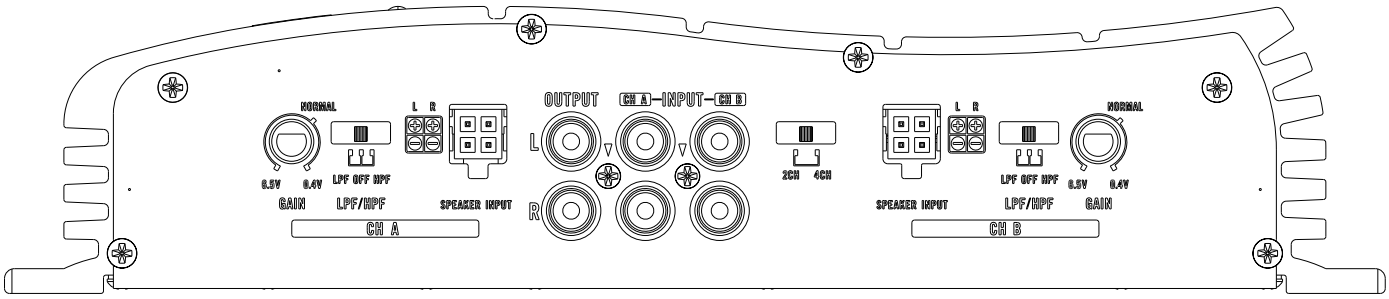


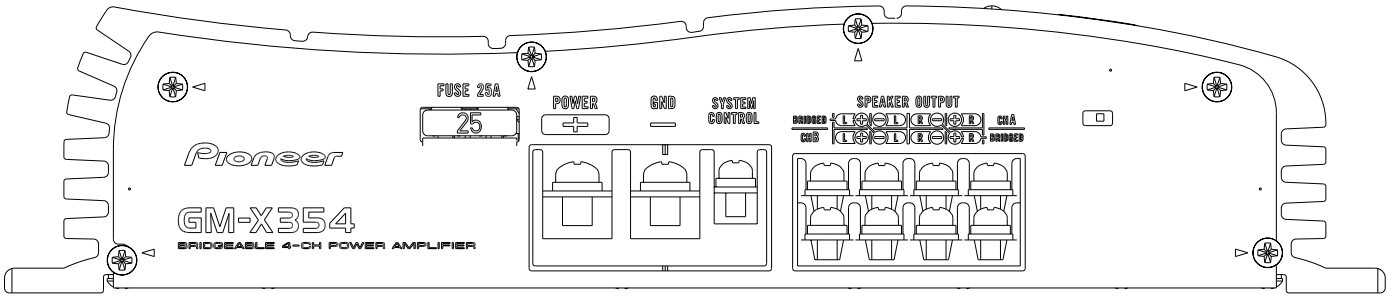
Fig.2

8. OPERATIONS AND SPECIFICATIONS

8.1 OPERATIONS

● **GM-X354/X1R/EW**





Setting the Unit

Gain Control

Adjusting the gain controls A and B will help match the output of the car stereo to the Pioneer amplifier. Normally, set the gain controls to the "NORMAL" position. If the output is low, even when the volume of the car stereo is turned up, turn these controls clockwise. If there is distortion when the volume of the car stereo is turned up, turn these controls counter-clockwise.

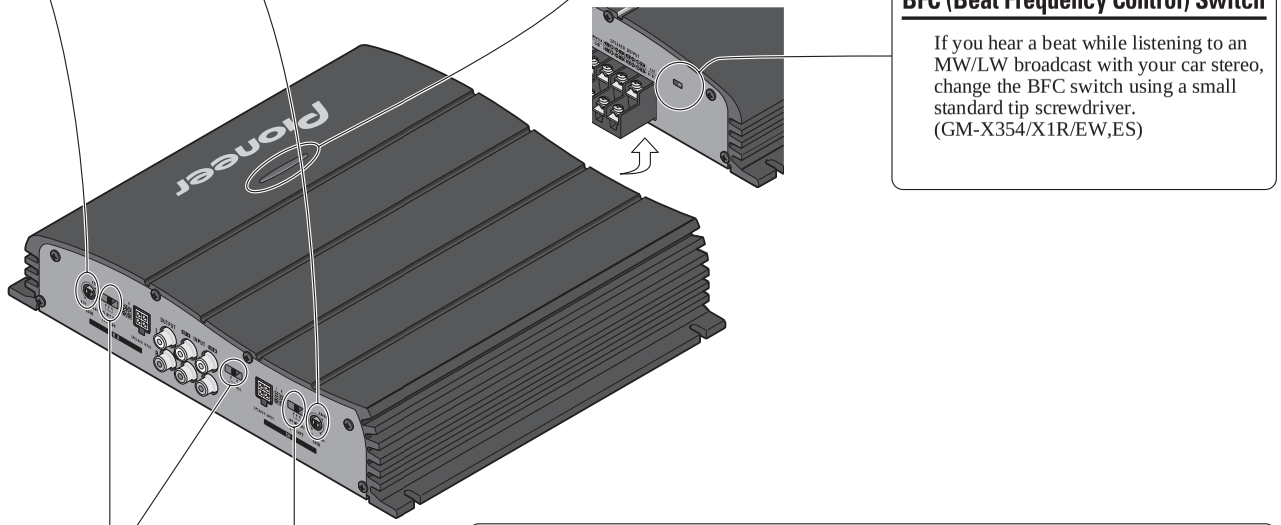
- If you only use one input plug, set the gain controls for speaker outputs A and B to the same position.
- When using with an RCA equipped car stereo (standard output of 500 mV), set to the NORMAL position. When using with an RCA equipped Pioneer car stereo with max. output of 4 V or more, adjust level to match the car stereo output level.
- If you hear too much noise when using the speaker input terminals, turn the gain control counter-clockwise.

Power Indicator

The power indicator lights when the power is switched on.

BFC (Beat Frequency Control) Switch

If you hear a beat while listening to an MW/LW broadcast with your car stereo, change the BFC switch using a small standard tip screwdriver. (GM-X354/X1R/EW,ES)



Input Select Switch

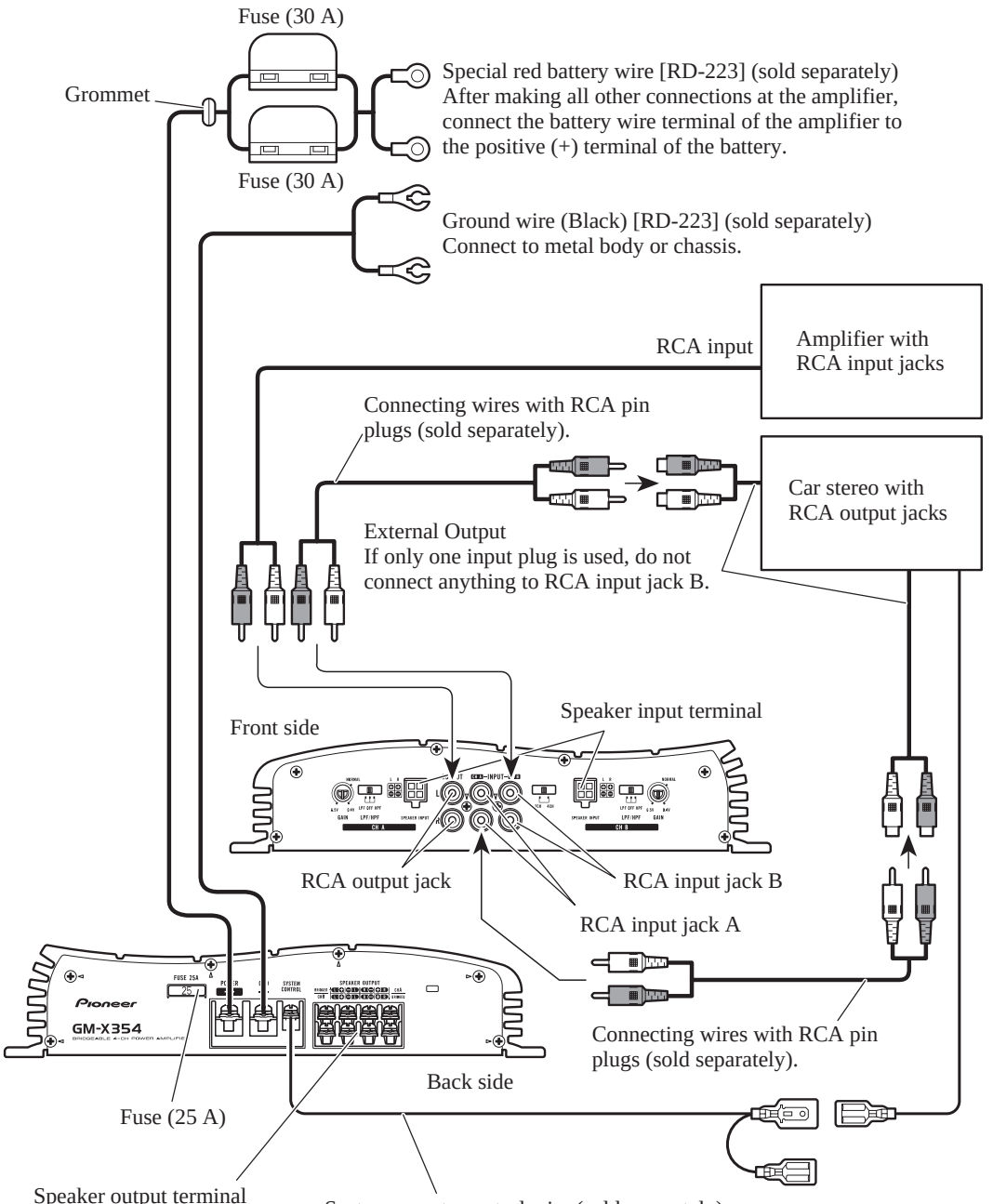
For two-channel input, slide this switch to the left. For four-channel input, slide this switch to the right.

LPF (Low-Pass Filter)/HPF (High-Pass Filter) Select Switch

Set the LPF/HPF select switch as follows according to the type of speaker that is connected to the speaker output connector and the car stereo system:

LPF/HPF Select Switch	Audio frequency range to be output	Speaker Type	Remarks
LPF (Left)	Very Low Frequency range	Subwoofer	Connect a subwoofer.
OFF (Center)	Full range	Full range	
HPF (Right)	Low Frequency range to High Frequency range	Full range	Use if you want to cut the very low frequency range because it is not necessary for the speakers you are using.

Connection Diagram


Fuse (30 A)
Grommet
Special red battery wire [RD-223] (sold separately)
After making all other connections at the amplifier, connect the battery wire terminal of the amplifier to the positive (+) terminal of the battery.
Fuse (30 A)
Ground wire (Black) [RD-223] (sold separately)
Connect to metal body or chassis.
RCA input
Amplifier with RCA input jacks
Connecting wires with RCA pin plugs (sold separately).
Car stereo with RCA output jacks
External Output
If only one input plug is used, do not connect anything to RCA input jack B.
Front side
Speaker input terminal
RCA output jack
RCA input jack B
RCA input jack A
Pioneer
GM-X354
Connecting wires with RCA pin plugs (sold separately).
Back side
Fuse (25 A)
Speaker output terminal
System remote control wire (sold separately)
Connect the male terminal of this wire to the system remote control terminal of the car stereo (SYSTEM REMOTE CONTROL). The female terminal can be connected to the auto-antenna relay control terminal. If the car stereo does not have a system remote control terminal, connect the male terminal to the power terminal through the ignition switch.

8.2 SPECIFICATIONS

● GM-X354/X1R/UC

Power source ..... 14.4 V DC (10.8 — 15.1 V allowable)
Grounding system ..... Negative type
Current consumption ..... 18.1 A (at continuous power, 4 Ω)
Idle current ..... 5 — 25 mA
Average current drawn* ..... 6.6 A (4 Ω for four channels)
..... 9.0 A (4 Ω for two channels)
Fuse ..... 25 A
Dimensions ..... 279 (W) x 58 (H) x 237 (D) mm
..... [11 (W) x 2-1/4 (H) x 9-3/8 (D) in]
Weight ..... 3.6 kg (7.9 lbs) (Leads for wiring not included)
Maximum power output ..... 70 W x 4 / 140 W x 2
Continuous power output ..... 35 W x 4 (at 14.4 V, 4 Ω, 20 — 20,000 Hz, 0.08% THD)
..... 70 W x 2 (at 14.4 V, 4 Ω, 20 — 20,000 Hz, 0.8% THD)
..... 40 W x 4 (at 14.4 V, 2 Ω, 20 — 20,000 Hz, 0.8% THD)
Load impedance ..... 4 Ω (2 — 8 Ω allowable)
..... (Bridge connection: 4 — 8 Ω allowable)
Frequency response ..... 10 — 50,000 Hz (+0 dB, –1 dB)
Signal-to-noise ratio ..... 100 dB (IHF–A network)
Distortion ..... 0.008% (10 W, 1 kHz)
Separation ..... 65 dB (1 kHz)
Low pass filter ..... Cut off frequency: 80 Hz
..... Cut off slope: –12 dB/oct
High pass filter ..... Cut off frequency: 80 Hz
..... Cut off slope: –12 dB/oct
Maximum input level/impedance ..... RCA: 6.5 V/22 kΩ (0.4 — 6.5 V)
..... Speaker: 26 V/40 kΩ (1.6 — 26 V)

Note:
- Specifications and the design are subject to possible modification without notice due to improvements.

*Average current drawn
- The average current drawn is nearly the maximum current drawn by this unit when an audio signal is input. Use this value when working out total current drawn by multiple power amplifiers.

● GM-X354/X1R/EW

Power source ..... 14.4 V DC (10.8 — 15.1 V allowable)
Grounding system ..... Negative type
Current consumption ..... 18.1 A (at continuous power, 4 Ω)
Idle current ..... 5 — 25 mA
Average current drawn* ..... 6.6 A (4 Ω for four channels)
..... 9.0 A (4 Ω for two channels)
Fuse ..... 25 A
Dimensions ..... 279 (W) x 58 (H) x 237 (D) mm
Weight ..... 3.6 kg (Leads for wiring not included)
Maximum power output ..... 70 W x 4 / 140 W x 2
Continuous power output ..... 45 W x 4 / 100 W x 2 (DIN45324, +B=14.4 V)
Load impedance ..... 4 Ω (2 — 8 Ω allowable)
..... (Bridge connection: 4 — 8 Ω allowable)
Frequency response ..... 10 — 50,000 Hz (+0 dB, –1 dB)
Signal-to-noise ratio ..... 100 dB (IEC-A network)
Distortion ..... 0.008% (10 W, 1 kHz)
Separation ..... 65 dB (1 kHz)
Low pass filter ..... Cut off frequency: 80 Hz
..... Cut off slope: –12 dB/oct
High pass filter ..... Cut off frequency: 80 Hz
..... Cut off slope: –12 dB/oct
Maximum input level/impedance ..... RCA: 6.5 V/22 kΩ (0.4 — 6.5 V)
.....Speaker: 26 V/40 kΩ (1.6 — 26 V)

Note:
- Specifications and the design are subject to possible modification without notice due to improvements.

*Average current drawn
- The average current drawn is nearly the maximum current drawn by this unit when an audio signal is input. Use this value when working out total current drawn by multiple power amplifiers.

● GM-X354/X1R/ES

Power source ..... 14.4 V DC (10.8 — 15.1 V allowable)
Grounding system ..... Negative type
Current consumption ..... 18.1 A (at continuous power, 4 Ω)
Idle current ..... 5 — 25 mA
Average current drawn* ..... 6.6 A (4 Ω for four channels)
..... 9.0 A (4 Ω for two channels)
Fuse ..... 25 A
Dimensions ..... 279 (W) x 58 (H) x 237 (D) mm
Weight ..... 3.6 kg (Leads for wiring not included)
Maximum power output ..... 70 W x 4 / 140 W x 2
Continuous power output ..... 35 W x 4 (at 14.4 V, 4 Ω, 20 — 20,000 Hz, 0.08% THD)
..... 70 W x 2 (at 14.4 V, 4 Ω, 20 — 20,000 Hz, 0.8% THD)
..... 40 W x 4 (at 14.4 V, 2 Ω, 20 — 20,000 Hz, 0.8% THD)
Load impedance ..... 4 Ω (2 — 8 Ω allowable)
..... (Bridge connection: 4 — 8 Ω allowable)
Frequency response ..... 10 — 50,000 Hz (+0 dB, –1 dB)
Signal-to-noise ratio ..... 100 dB (IEC-A network)
Distortion ..... 0.008% (10 W, 1 kHz)
Separation ..... 65 dB (1 kHz)
Low pass filter ..... Cut off frequency: 80 Hz
..... Cut off slope: –12 dB/oct
High pass filter ..... Cut off frequency: 80 Hz
..... Cut off slope: –12 dB/oct
Maximum input level/impedance ..... RCA: 6.5 V/22 kΩ (0.4 — 6.5 V)
..... Speaker: 26 V/40 kΩ (1.6 — 26 V)

Note:
- Specifications and the design are subject to possible modification without notice due to improvements.

*Average current drawn
- The average current drawn is nearly the maximum current drawn by this unit when an audio signal is input. Use this value when working out total current drawn by multiple power amplifiers.